

Docket No.: PF-0475-2 DIV

Inventors: Lal et al.

Title: HUMAN SHORT-CHAIN DEHYDROGENASE

Serial No.: To Be Assigned

5'	CT AAC TTT GGC CTG GGA CTC TGC CCC TCT ACC 36	45	54
	9 18 27		
TCC TAC TAC AGA ATC AAT CCT TGA ACA CTG CCT CCA CGT CGC CGG CGG CCC GGG	63 72 81 90	99	108
GGC GAG AAC CCA GAC TTC CAC CGC AGC CCC GCA ATC TGC AGA CCT CGT CGC CGG CGG CAG	117 126 135 144	153	162
CGC AGG TGG CAG ACC TGC CRC CTT TGC CTG TGA GTC ATG GCA GCT CCC ATG AAT	171 180 189 198	207	216
G G G C A A G T G G T G T G T G A C T G T G A C T G G T G G T A T T G G C A T T G C C	225 234 243 252	261	270
G Q V C V V T G A S R G I G R G I A			
T G C A G C T C T G C A A A G C A G G C G C A G T T T A C A T C A C T G G C C G C C A T C T G G A C	279 288 297 306	315	324
L Q L C K A G A T V Y I T G R H L D			
A C C C T T C G C G T T G T T G C T C A G G G C A A T C C C G G G C A A T G T G C C T	333 342 351 360	369	378
T L R V V A Q E A Q S L G G Q C V P			

Figure 1A

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GTG	GTG	TGC	GAT	TCA	AGC	CAG	GAG	AGT	GAA	GTG	CGA	ACG	CTG	TTT	GAG	CAA	GTG	432
V	V	C	D	S	S	Q	E	S	E	R	T	L	F	E	Q	V		
GAT	CGG	GAA	CAG	CAA	GGG	CGT	CTA	GAT	GTG	CTG	GTC	AAC	AAT	GCT	TAT	GCA	GGG	486
D	R	E	Q	Q	G	R	L	D	V	L	V	N	N	A	Y	A	G	
GTC	CAG	ACG	ATC	CTG	AAC	ACC	AGG	AAT	AAG	GCA	TTC	TGG	GAA	ACC	CCT	GCC	TCC	540
V	Q	T	I	L	N	T	R	N	K	A	F	W	E	T	P	A	S	
ATG	TGG	GAT	GAT	ATC	AAC	AAC	GTC	GGA	CTC	AGA	GCG	CAC	TAC	TTT	TGC	TCA	GTG	594
M	W	D	D	I	N	N	V	G	L	R	G	H	Y	F	C	S	V	
TAT	GGG	GCA	CGG	CTG	ATG	GTA	CCA	GCT	GGC	CAG	GGG	CTC	ATC	GTG	GTC	ATC	TCC	648
Y	G	A	R	L	M	V	P	A	G	Q	G	L	I	V	V	I	S	
TCC	CCA	GGA	AGC	CTG	CAG	TAT	ATG	TTC	ATG	GTC	CCC	TAT	GGT	GTG	GCG	AAA	GCT	702
S	P	G	S	L	Q	Y	M	F	N	V	P	Y	G	V	G	K	A	

Figure 1B

Figure 1C

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1035	1044	1053	1062	1071	1080
S L S S V L S H V S G L W L A S Y	TCT TTG AGC TCT GTC CTC TCA CAC GTG TCC GGC CTG GGC TGG CTG GCC TCC TAC				
1089	1098	1107	1116	1125	1134
L P S F L R V P K W I I A L Y T S K	CTG CCC TCC TTC CTC CGT GTG CCC AAG TGG ATT ATT GCC CTC TAC ACT AGC AAG				
1143	1152	1161	1170	1179	1188
F	TTC TAA CCC TCC TGG TCT GAC ACT ACG TCT CTG CTT GTC TTC TCA TTT GGA CTT				
1197	1206	1215	1224	1233	1242
	GGT TCG TCC TGT CTC AGT GAA ACA GCA GCA GCC TTT CTT GTC TAC CCA TAC CCT				
1251	1260	1269	1278	1287	1296
	TGA TAT GAA GAG AAG CCC TCT GCT GTG TGT CCG TGG TGA GTT CTG GCG TGC GCC				
1305	1314	1323	1332	1341	1350
	TAG GTC CCT TCT TTG TGC CTT GGT TTT CCT TGT CCT TTT TAC TTT TTG CCT				
1359	1368	1377	1386		
	TAG TAT TGA AAA ATG CTC TTG GAG CTA ATA AAA GTC TA 3'				

Figure 1D

1 MAAPMNGQVCVVTGASRGIGRGIALQCKAGATVYTGRH 356351
 1 MGVLQDQVALTGA[REDACTED]RGRGIALQ[REDACTED]GRR GI 2315796

41 PELSDNFRGLPSSLDYVAK[EITSRGKGIALYV[REDACTED]DHSNMTE GI 2315796

41 LDTLRYVVAQEAO[REDACTED]SLSQEQCVPVVCDSSEQESE 356351

71 VRTLFEOVQDREQQGRLDVLYNNAYAGVOTILNTRNKAFWE 356351
 81 VKFLEKIREDEEGKLDTLVNNVYNSLKGATEMIGKTFED GI 2315796

111 TPA[REDACTED]WDDINNVGLRGHYFCSVYGA[REDACTED]RLMVPA[REDACTED]QGLIVVIS 356351
 121 QDPSFWDDINGVGLRNHY[REDACTED]ARMMVERRKGLIVNVG GI 2315796

151 SPGSLOYMFNVPYGGKAACDKLAADC[REDACTED]CAHELRRHGVS[REDACTED]CVS 356351
 161 SLQGLK[REDACTED]VFNVAYGA[REDACTED]LARMSTDMAV[REDACTED]PYNVCVVT GI 2315796

191 LWPGIVVQTELKEHMAKE - - VLODPVLKQFKSAFSSAE 356351
 201 LI[REDACTED]PQVKTE[REDACTED]TANRTIIDDAYMIKENPELEEE[REDACTED]IKGE GI 2315796

228 TTELSGKCVVVALATDPN[REDACTED]LSSGKVLPSCDLARRYGRLRDV 356351
 237 STEYTGKALARLAMDPGKLK[REDACTED]SGKT[REDACTED]FTEDLAQKYDFSDK GI 2315796

268 DGRPV - QDYLSLSSVLSHVSSGLGWLASYLPSFLRVPKW 356351
 277 HAGMEPQNI[REDACTED]RTI[REDACTED]GTMGKEE - VAKYTPQIKLPKWV GI 2315796

306 IALYTSKF 356351
 316 IWQS[REDACTED]NRE 356351
 GI 2315796

Figure 2